IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Dany Sylvain
Serial No. 10/693,807
Filed: 10/24/2003
For: **REHOMING VIA TUNNEL SWITCHING**

Examiner: Sall, El Hadji Malick
Art Unit: 2157

Mail Stop Appeal Brief – Patents
Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

Sir:

An **APPEAL BRIEF** is filed herewith. Appellant encloses a payment in the amount of $510.00 as required by 37 C.F.R. § 1.17(c). If any additional fees are required in association with this appeal brief, the Director is hereby authorized to charge them to Deposit Account 50-1732, and consider this a petition therefor.

APPEAL BRIEF

(1) REAL PARTY IN INTEREST

The real party in interest is the assignee of record, i.e., Nortel Networks Limited of 2351 Boulevard Alfred-Nobel, St. Laurent, Quebec Canada H4S 2A9, which is wholly owned by Nortel Networks Corporation, a Canadian corporation.

(2) RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences to the best of Appellant's knowledge.

(3) STATUS OF CLAIMS

Claims 1-36 were rejected with the rejection made final on January 24, 2008.
Claims 1-36 are pending and are the subject of this appeal.

(4) STATUS OF AMENDMENTS

All amendments have been entered to the best of Appellant's knowledge. No amendments have been filed after the Final Office Action mailed January 24, 2008.

(5) SUMMARY OF CLAIMED SUBJECT MATTER

In the following summary, Appellant has noted where in the Specification certain subject matter exists. Appellant wishes to point out that these citations are for demonstrative purposes only and that the Specification may include additional discussion of the various elements, citations to which are not pointed out below. Thus, the noted citations are in no way intended to limit the scope of the pending claims.

The present invention relates to using a tunnel access server to facilitate communications between a user element and one or more protected network resources, wherein a first and second tunneling session are established between the tunnel access server and the user element via a first and a second intermediate access network (Specification, paragraph 0006). To allow the user element to send packets to a protected network resource, the tunnel access server will initially send a target network address to the user element, and the user element will use the target network address for sending packets to the protected network resource via the tunnel access server. *Ibid.* The packets intended for the protected network resource are initially sent to the tunnel access server via the existing tunneling session. *Ibid.* When the user element moves from one access network to another, the tunnel access server will reserve the target network address previously assigned to the user element and reassign the target network address to the user element over a second tunneling session established over the new access network. *Ibid.* As such, applications running on the user element do not have to be restarted or take other actions to accommodate using a different target network address for sending packets to the protected network resource. Thus, the present invention allows applications running on a user terminal to use a common IP address when communicating with a particular protected network resource as the user terminal moves from one access network to another (Specification, paragraph 0017; see also Figure 1).

Independent claim 1 recites a method for facilitating communications between a user element (such as user element 14, Figures 1 and 5, which may be a mobile terminal, personal computer, personal digital assistant, or other computing devices; see also Specification, paragraph 0017) and a protected network resource (such as protected network resources 16, Figure 1; see also Specification, paragraph 0017) comprising:

a)   establishing a first tunneling session (such as the left communication tunnel 26, Figure 1; see also Specification, paragraphs 0018 and 0019) with the user element via a first

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access network (such as one of the visited access networks 20, Figure 1, which may be wireless local area networks or cellular networks; see also Specification, paragraphs 0017-0019) (Specification, paragraphs 0017-0019);

b)   assigning to the user element a first target network protected address for addressing packets intended for the protected network resource and traveling in part over the first tunneling session (Specification, paragraphs 0019 and 0020);

c)   establishing a second tunneling session (such as new communication tunnel 26 on the right of Figure 1; see also Specification, paragraph 0020) with the user element via a second access network (such as a second one of the visited access networks 20, Figure 1, which may be wireless local area networks or cellular networks; see also Specification, paragraphs 0017-0019) (Specification, paragraphs 0020-0022; see also Figure 2A, steps 114 and 118); and

d)   reassigning to the user element the first target network protected address for addressing packets intended for the protected network resource and traveling in part over the second tunneling session (Specification, paragraph 0020-0022; see also Figure 2A, steps 116 and 120).

Independent claim 12 recites a tunnel access server (such as tunnel access server 12, Figures 1 and 4) for facilitating communications between a user element (such as user element 14, Figures 1 and 5, which may be a mobile terminal, personal computer, personal digital assistant, or other computing devices; see also Specification, paragraph 0017) and a protected network resource (such as protected network resources 16, Figure 1; see also Specification, paragraph 0017) comprising:

a)   at least one communication interface (such as network interface(s) 38, Figure 4); and

b)   a control system (such as control system 32, Figure 4) associated with the at least one communication interface and adapted to:

i)   establish a first tunneling session (such as the left communication tunnel 26, Figure 1; see also Specification, paragraphs 0018 and 0019) with the user element via a first access network (such as one of the visited access networks 20, Figure 1, which may be wireless local area networks or cellular networks; see also Specification, paragraphs 0017-0019) (Specification, paragraphs 0017-0019);

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ii)   assign to the user element a first target network protected address for addressing packets intended for the protected network resource and traveling in part over the first tunneling session (Specification, paragraphs 0019 and 0020);

iii)   establish a second tunneling session (such as new communication tunnel 26 on the right of Figure 1; see also Specification, paragraph 0020) with the user element via a second access network (such as a second one of the visited access networks 20, Figure 1, which may be wireless local area networks or cellular networks; see also Specification, paragraphs 0017-0019) (Specification, paragraphs 0020-0022; see also Figure 2A, steps 114 and 118); and

iv)   reassign to the user element the first target network protected address for addressing packets intended for the protected network resource and traveling in part over the second tunneling session (Specification, paragraph 0020-0022; see also Figure 2A, steps 116 and 120).

Independent claim 23 recites a method for facilitating communications between a user element (such as user element 14, Figures 1 and 5, which may be a mobile terminal, personal computer, personal digital assistant, or other computing devices; see also Specification, paragraph 0017) and a protected network resource (such as protected network resources 16, Figure 1; see also Specification, paragraph 0017) comprising:

a)   establishing a first tunneling session (such as the left communication tunnel 26, Figure 1; see also Specification, paragraphs 0018 and 0019) with a tunnel access server (such as tunnel access server 12, Figures 1 and 4) via a first access network (such as one of the visited access networks 20, Figure 1, which may be wireless local area networks or cellular networks; see also Specification, paragraphs 0017-0019) (Specification, paragraphs 0017-0019);

b)   sending packets intended for the protected network resource over the first tunneling session using a first target network protected address (Specification, paragraphs 0018 and 0019);

c)   establishing a second tunneling session (such as new communication tunnel 26 on the right of Figure 1; see also Specification, paragraph 0020) with the tunnel access server via a second access network (such as a second one of the visited access networks 20, Figure 1, which may be wireless local area networks or cellular networks; see also Specification, paragraphs

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0017-0019) (Specification, paragraphs 0020-0022; see also Figure 2A, steps 114 and 118, and Figure 3, step 212);

    d)   receiving from the tunnel access server a target network protected address for sending packets intended for the protected network resource (Specification, paragraphs 0025 and 0026; see also Figure 3, step 210);

    e)   determining if the target network address is the same as the first target network address (Specification, paragraphs 0025 and 0026; see also Figure 3, step 214); and

    f)   if the target network address is the same as the first target network address, sending the packets intended for the protected network resource over the second tunneling session using the first target network protected address (Specification, paragraphs 0025 and 0026; see also Figure 3, step 216).

Independent claim 30 recites a user element (such as user element 14, Figures 1 and 5, which may be a mobile terminal, personal computer, personal digital assistant, or other computing devices; see also Specification, paragraph 0017) for facilitating communications with a protected network resource (such as protected network resources 16, Figure 1; see also Specification, paragraph 0017) via a tunnel access server (such as tunnel access server 12, Figures 1 and 4) comprising:

    a)   at least one communication interface (such as network interface(s) 46, Figure 5; see also Specification, paragraph 0028); and

    b)   a control system (such as control system 40, Figure 5; see also Specification, paragraph 0028) associated with the at least one communication interface and adapted to:

        i)   establish a first tunneling session (such as the left communication tunnel 26, Figure 1; see also Specification, paragraphs 0018 and 0019) with the tunnel access server via a first access network (such as one of the visited access networks 20, Figure 1, which may be wireless local area networks or cellular networks; see also Specification, paragraphs 0017-0019) (Specification, paragraphs 0017-0019);

        ii)   send packets intended for the protected network resource over the first tunneling session using a first target network protected address (Specification, paragraphs 0018 and 0019);

        iii)   establish a second tunneling session (such as new communication tunnel 26 on the right of Figure 1; see also Specification, paragraph 0020) with the tunnel access

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server via a second access network (such as a second one of the visited access networks 20, Figure 1, which may be wireless local area networks or cellular networks; see also Specification, paragraphs 0017-0019) (Specification, paragraphs 0020-0022; see also Figure 2A, steps 114 and 118, and Figure 3, step 212);

      iv)   receive from the tunnel access server a target network address for sending packets intended for the protected network resource (Specification, paragraphs 0025 and 0026; see also Figure 3, step 210);

      v)   determine if the target network address is the same as the first target network protected address (Specification, paragraphs 0025 and 0026; see also Figure 3, step 214); and

      vi)   if the target network address is the same as the first target network address, send the packets intended for the protected network resource over the second tunneling session using the first target network protected address (Specification, paragraphs 0025 and 0026; see also Figure 3, step 216).

(6) GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

A. Whether claims 1-10, 12-21, 23, 25-28, 30, and 32-35 were properly rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 7,237,260 B2 to Yu et al. (hereinafter "Yu").

B. Whether claims 11, 22, 24, 29, 31, and 36 were properly rejected under 35 U.S.C. § 103(a) as being unpatentable over Yu in view of U.S. Patent No. 7,020,464 B2 to Bahl et al. (hereinafter "Bahl").

(7) ARGUMENT

A. Introduction

The rejections made by the Patent Office are improper for the following reasons. First, Yu is not prior art under 35 U.S.C. § 102(e). Appellant respectfully submits that the date of invention for the present application was prior to the July 8, 2003 filing date of Yu and that diligent action was taken from a time period prior to July 8, 2003, through the filing of the present application to constructively reduce the invention to practice. Therefore, Yu was not

filed before Appellant's present invention, and Yu does not qualify as prior art under 35 U.S.C. § 102(e).

Second, even if Yu can be considered prior art under 35 U.S.C. § 102(e), a point Appellant does not concede, Yu does not anticipate the claimed invention as Yu does not teach each and every element of the claimed invention. In particular, the Patent Office has not shown where the prior art discloses establishing two tunneling sessions **over different access networks**, as claimed in the present invention. In fact, Yu only discloses a single network, not different access networks (see Yu, col. 1, lines 8-10 ("The present invention relates to communication protocols in **a** network, and more particularly to tunneling in **a** network using different communication protocols") (emphasis added); see also Figure 1).

In addition, Yu also fails to show an additional limitation recited in independent claims 23 and 30. Independent claims 23 and 30 also recite that the first and second tunneling sessions are established with the first and second access networks via a tunnel access server. Yu does not teach the claimed tunnel access server. Thus, claims 23 and 30 are patentable for this additional reason.

As such, Appellant requests that the Board reverse the Examiner and instruct the Examiner to allow the claims for these reasons along with the reasons noted below.

B. Summary Of References
1. U.S. Patent No. 7,237,260 B2 To Yu

Yu is directed to communication protocols in a single network, and more particularly to tunneling in a single network using different communication protocols (Yu, col. 1, lines 8-10). Thus, Yu only discloses a single network (*Ibid.*; see also Yu, Figure 1). Yu discloses a method for establishing communication in a network that comprises determining communication data from a first peer at a first tunnel. The communication data is registered with a lookup service. A communication request is received from a second peer at the lookup service. The communication data of the first peer is provided to the second peer (Yu, col. 1, lines 49-55). In another embodiment of Yu, a lookup service in a network comprises a first tunnel module that acquires communication data of a network peer (Yu, col. 1, lines 56-58). A registration table stores the communication data (Yu, col. 1, lines 58-59). A second tunnel module sends a communication request to the registration table, acquires the communication data from the

registration table, and sends a communication attempt to the first tunnel based on the communication data (Yu, col. 1, lines 59-63). Thus, Yu merely discloses a method for establishing communication in a single network having two network peers, or two tunnel modules.

2. U.S. Patent No. 7,020,464 B2 To Bahl

Bahl is directed to a system and method for mobility support that handles address changes of a mobile host to provide transparent session continuity without packet overhead or the need for assistance of an agent on the network (Bahl, Abstract). When the mobile host changes to a new address, its old address is deprecated. *Ibid.* The mobile host sends an address change message to each of its correspondent hosts over a secured control channel and preferably through a tunnel created based on the old and new addresses. *Ibid.* Upon receiving the notification, the correspondent host returns an acknowledgment through the control channel and modifies its security filters and transport control parameters corresponding to the connection with the mobile host to use the new address. *Ibid.* After receiving the acknowledgment, the mobile host modifies its security filters and transport control parameters for the connection to use the new address. *Ibid.* As a result, the connection between the mobile host and the correspondent host has migrated to the new mobile host address, and the migration is transparent to applications on the mobile and correspondent hosts and is done without the assistance of an agent. *Ibid.*

C. Legal Standards

1. For Establishing Anticipation

Section 102 of the Patent Act provides the statutory basis for an anticipation rejection and states *inter alia*:

> A person shall be entitled to a patent unless
> ***
> (e) the invention was described in - (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for the purposes of this subsection of an application filed in the United States only if the international application designated the United States

and was published under Article 21(2) of such treaty in the English language. . . .
35 U.S.C. § 102(e).

Moreover, an applicant may submit an appropriate oath or declaration to establish invention of the subject matter of the rejected claim prior to the effective date of the reference or activity on which the rejection is based, in which case the rejection is overcome. 37 C.F.R. § 1.131(a). The declaration must include a showing of facts sufficient to establish reduction to practice prior to the effective date of the reference, or conception of the invention prior to the effective date of the reference coupled with due diligence from prior to said date to a subsequent reduction to practice or to the filing of the application. 37 C.F.R. § 1.131(b). Conception is established at least as early as the date a draft of the patent application was finished by a patent attorney on behalf of the inventor. M.P.E.P. § 2138.06. All that is required for diligence is that the period during which diligence is required be accounted for. *Ibid.* The diligence required may be attorney diligence or engineering diligence, which does not require that "an inventor or his attorney . . . drop all other work and concentrate on the particular invention involved . . . ." M.P.E.P. § 2138.06, citing *Emery v. Ronden*, 188 U.S.P.Q. (BNA) 264, 268 (BPAI 1974). The diligence of attorney in preparing and filing patent application inures to the benefit of the inventor. Reasonable diligence is all that is required of the attorney and is established if attorney worked reasonably hard on the application during the continuous critical period. If the attorney has a reasonable backlog of unrelated cases which he takes up in chronological order and carries out expeditiously, that is sufficient. M.P.E.P. § 2138.06, citing *Bey v. Kollonitsch*, 866 F.2d 1024, 231 U.S.P.Q. (BNA) 967 (Fed. Cir. 1986).

The Federal Circuit's test for anticipation has been set forth numerous times. "It is axiomatic that for prior art to anticipate under 102 it has to meet every element of the claimed invention." *Hybritech Inc. v. Monoclonal Antibodies, Inc.*, 802 F.2d 1367, 1379 (Fed. Cir. 1986). This standard has been reinforced. "To anticipate a claim, a reference must disclose every element of the challenged claim and enable one skilled in the art to make the anticipating subject matter." *PPG Indus. Inc. v. Guardian Indus. Corp.*, 75 F.3d 1558, 1577 (Fed. Cir. 1996) (citations omitted). Further, "a finding of anticipation requires that the publication describe all of the elements of the claims, arranged as in the patented device." *C.R. Bard Inc. v. M3 Sys. Inc.*, 157 F.3d 1340, 1349 (Fed. Cir. 1998) (emphasis added and citations omitted).

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2. For Establishing Obviousness

Section 103(a) of the Patent Act provides the statutory basis for an obviousness rejection and reads as follows:

> A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Courts have interpreted 35 U.S.C. § 103(a) as a question of law based on underlying facts. As the Federal Circuit stated:

> Obviousness is ultimately a determination of law based on underlying determinations of fact. These underlying factual determinations include: (1) the scope and content of the prior art; (2) the level of ordinary skill in the art; (3) the differences between the claimed invention and the prior art; and (4) the extent of any proffered objective indicia of nonobviousness.

Monarch Knitting Mach. Corp. v. Sulzer Morat GmBH, 45 U.S.P.Q.2d (BNA) 1977, 1981 (Fed. Cir. 1998) (internal citations omitted).

Once the scope of the prior art is ascertained, the content of the prior art must be properly combined. An obviousness inquiry requires looking at a number of factors, including the background knowledge possessed by a person having ordinary skill in the art, to determine whether there was an apparent reason to combine the elements of the prior art in the fashion claimed by the present invention. *KSR Int'l v. Teleflex, Inc.*, 550 U.S. ___, 82 U.S.P.Q.2d (BNA) 1385, 1396 (2007). For the Patent Office to combine references in an obviousness rejection, the Patent Office must identify a reason why a person of ordinary skill in the art would have combined the references. *Ibid.* After the combination has been made, for a *prima facie* case of obviousness, the combination must still teach or fairly suggest all of the claim elements. *In re Royka*, 490 F.2d 981 (C.C.P.A. 1974); M.P.E.P. § 2143.03. If the Patent Office cannot establish obviousness, the claims are allowable.

Some elements may be inherent within the reference. "To establish inherency, the extrinsic evidence 'must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill.'" *In re Robertson*, 169 F.3d 743, 745 (Fed. Cir. 1999) (quoting *Cont'l Can Co. v.*

Monsanto Co., 948 F.2d 1264, 1268 (Fed. Cir. 1991)). "The mere fact that a certain thing may result from a given set of circumstances is not sufficient." *Ibid.* (citation and quotation omitted). Thus, the possibility that an element may be derived from the reference is insufficient to establish that said element is inherent to the reference.

Whether an element is implicitly or explicitly taught by a reference or combination of references is open to interpretation. While the Patent Office is entitled to give claim terms their broadest reasonable interpretation, this interpretation is limited by a number of factors. First, the interpretation must be consistent with the specification. *In re Hyatt*, 211 F.3d 1367, 1372 (Fed. Cir. 2000); M.P.E.P. § 2111. Second, the broadest reasonable interpretation of the claims must also be consistent with the interpretation that those skilled in the art would reach. *In re Cortright*, 165 F.3d 1353, 1359, (Fed. Cir. 1999); M.P.E.P. § 2111. Finally, the interpretation must be reasonable. *In re Am. Acad. of Sci. Tech. Ctr.*, 367 F.3d 1359, 1369 (Fed. Cir. 2004); M.P.E.P. § 2111.01. This means that the words of the claim must be given their plain meaning unless Appellant has provided a clear definition in the specification. *In re Am. Acad. of Sci. Tech. Ctr.*, 367 F.3d 1359, 1369 (Fed. Cir. 2004); M.P.E.P. § 2111.01.

If a claim element is missing after the combination is made, then the combination does not render obvious the claimed invention, and the claims are allowable. As stated by the Federal Circuit, "[if] the PTO fails to meet this burden, then Appellant is entitled to the patent." *In re Glaug,* 283 F.3d 1335, 1338 (Fed. Cir. 2002).

D. Claims 1-10, 12-21, 23, 25-28, 30, And 32-35 Are Not Anticipated By Yu

Claims 1-10, 12-21, 23, 25-28, 30, and 32-35 were rejected under 35 U.S.C. § 102(e) as being anticipated by Yu. Appellant respectfully disagrees.

First, Yu is not prior art under 35 U.S.C. § 102(e). Appellant respectfully submits that the date of invention for the present application was prior to the July 8, 2003 filing date of Yu and that diligent action was taken from a time period prior to July 8, 2003, through the filing of the present application to constructively reduce the invention to practice. Therefore, Yu was not filed before Appellant's present invention, and Yu does not qualify as prior art under 35 U.S.C. § 102(e).

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Second, even if Yu can be considered prior art under 35 U.S.C. § 102(e), a point Appellant does not concede, Yu does not anticipate the claimed invention as Yu does not teach each and every element of the claimed invention, as discussed more fully below.

1. Yu Is Not Prior Art Under 35 U.S.C. § 102(e)

35 U.S.C. § 102(e) requires that the invention be "...described in (1) an application for patent, published under section 122(b), by another filed in the United States **before the invention by the applicant for patent**" (emphasis added). However, Appellant conceived of the present invention prior to the filing date of Yu, and constructively reduced the present invention to practice through the filing of the present application. As such, Yu does not qualify as prior art under § 102(e).

In order to establish that Yu does not qualify as prior art under § 102(e), Appellant cites to the Declaration of the Inventor, Dany Sylvain, under 37 C.F.R. § 1.131, illustrating conception of the present invention prior to the filing date of Yu (see Exhibit A). Appellant also refers to the previously submitted Declaration of Appellant's Representative, Benjamin S. Withrow (see Exhibit B), the patent attorney who drafted the present application, to be used in conjunction with the Declaration of the Inventor, Dany Sylvain. These declarations show diligence from a time prior to the filing date of Yu through a constructive reduction to practice of the present invention by the filing of the present application.

Based on the Declarations, the present invention was conceived of at least as early as February 22, 2003. The inventor, Dany Sylvain, conceived of the Present Invention at least as early as February 22, 2003, the date when Mr. Sylvain completed the Invention Disclosure and submitted it to the Intellectual Property Law Department at Nortel Networks Limited (hereinafter "Nortel")(See Exhibit A, Declaration of Dany Sylvain, Paragraphs 3-5, and Appendix A). Appendix A to the Declaration of Dany Sylvain (hereinafter "Invention Disclosure") clearly shows conception of each of the limitations of the present invention, as seen below with respect to representative claim 1[1]:

A method for facilitating communications between a user element and a protected network resource comprising:

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[1] Independent claim 12 is directed to a tunnel access server, but has basically the same limitations as claim 1, and therefore was also conceived of at least as early as February 22, 2003, as shown in the Invention Disclosure.

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a)   establishing a first tunneling session with the user element via a first access network (see Invention Disclosure, p. 2, "Brief Description of the Invention"; see also Invention Disclosure, p. 3, Figure entitled "Rehoming via VPN tunnel switching");

b)   assigning to the user element a first target network protected address for addressing packets intended for the protected network resource and traveling in part over the first tunneling session (see Invention Disclosure, p. 2, "Brief Description of the Invention");

c)   establishing a second tunneling session with the user element via a second access network (see Invention Disclosure, p. 2, "Brief Description of the Invention"; see also Invention Disclosure, p. 3, Figure entitled "Rehoming via VPN tunnel switching"); and

d)   reassigning to the user element the first target network protected address for addressing packets intended for the protected network resource and traveling in part over the second tunneling session (see Invention Disclosure, p. 2, "Brief Description of the Invention"). Thus, as seen above, at least as early as February 22, 2003, before the July 8, 2003 filing date of Yu, Mr. Sylvain had conceived of the invention claimed in the present application.

Further, the Declarations show that from a date prior to July 8, 2003 (the filing date of Yu), diligent action was taken by Appellant's representative, Benjamin S. Withrow; the inventor, Mr. Sylvain; and the assignee of the present application, Nortel, to constructively reduce the invention to practice through the filing of the instant patent application on October 24, 2003. (See Exhibit B, Declaration of Benjamin S. Withrow, Paragraphs 3-14; and Exhibit A, Declaration of Dany Sylvain, Paragraphs 5-12). In particular, prior to the July 8, 2003 filing date of Yu, in-house patent attorney for the assignee of the present application reviewed the Invention Disclosure and made a decision to file a patent application seeking protection for the invention disclosed in the Invention Disclosure (see Exhibit A, Declaration of Dany Sylvain, Paragraph 5). The in-house patent attorney for the assignee sent instructions on April 7, 2003 to Benjamin S. Withrow, registered U.S. patent attorney, Registration No. 40,876, of the law firm of Withrow & Terranova, PLLC, instructing him to prepare and file a patent application for the Invention Disclosure (see Exhibit B, Declaration of Benjamin S. Withrow, Paragraph 3, and Appendix A; see also Exhibit A, Declaration of Dany Sylvain, Paragraph 6 and Appendix B). Mr. Withrow also received instructions from Nortel to prepare and file patent applications for a number of previous Invention Disclosures prior to April 7, 2003 (see Exhibit B, Declaration of Benjamin S. Withrow, Paragraph 5). From the time of receiving the instructions from Nortel to prepare and

file patent applications for a number of previous Invention Disclosures, until about October 24, 2003, Mr. Withrow worked to prepare patent applications for the number of previous Invention Disclosures in essentially a chronological, first-in-first-out fashion (see Exhibit B, Declaration of Benjamin S. Withrow, Paragraph 6).

Starting from April 7, 2003, and continuing through October 24, 2003, Mr. Withrow diligently reviewed the Invention Disclosure, spoke with the inventor Dany Sylvain, and diligently worked to prepare a patent application claiming the invention disclosed in the Invention Disclosure (see Exhibit B, Declaration of Benjamin S. Withrow, Paragraph 7; see also Exhibit A, Declaration of Dany Sylvain, Paragraph 7). The diligent work by Mr. Withrow resulted in a first draft of the Patent Application, which was sent to the inventor on June 5, 2003 (see Exhibit B, Declaration of Benjamin S. Withrow, Paragraph 8 and Appendix B; see also Exhibit A, Declaration of Dany Sylvain, Paragraph 8 and Appendix C). The inventor, Mr. Sylvain, then reviewed the draft application between June 5 and August 21, 2003, and provided comments regarding the First Draft to Mr. Withrow on August 21, 2003 (see Exhibit B, Declaration of Benjamin S. Withrow, Paragraph 9 and Appendix C; see also Exhibit A, Declaration of Dany Sylvain, Paragraph 9). On August 25, 2003, Mr. Withrow revised the Patent Application to incorporate the comments from the inventor and sent a revised Patent Application to in-house counsel at Nortel, the assignee (see Exhibit B, Declaration of Benjamin S. Withrow, Paragraph 10 and Appendix C). A copy of the revised Patent Application, the inventor declaration, and the assignment document was also sent on August 25, 2003 to the inventor for his signature (see Exhibit B, Declaration of Benjamin S. Withrow, Paragraph 11 and Appendix C; see also Exhibit A, Declaration of Dany Sylvain, Paragraph 10). Between August 25, 2003, and October 23, 2003, the in-house counsel for the assignee, Nortel, reviewed the revised Patent Application and provided comments to Mr. Withrow. On October 23, 2003, the in-house counsel for the assignee authorized the filing of the patent application as drafted (see Exhibit B, Declaration of Benjamin S. Withrow, Paragraph 13). On October 24, 2003, after having received a signed inventor declaration and assignment document from the inventor, and approval from in-house counsel at Nortel to file the Patent Application, the Patent Application was filed with the U.S. Patent & Trademark Office and was assigned Application Serial Number 10/693,807 (See Exhibit B, Declaration of Benjamin S. Withrow, Paragraphs 12-14 and Appendix C; see also Exhibit A, Declaration of Dany Sylvain, Paragraphs 11-12). Thus, from a

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date prior to July 8, 2003, the filing date of Yu, diligent action was taken by Appellant's representative, Benjamin S. Withrow, the inventor, Mr. Sylvain, and the assignee of the present application to constructively reduce the invention to practice through the filing of the instant patent application on October 24, 2003.

The filing date of Yu is July 8, 2003. Based on the Declarations and the above facts, Appellant respectfully submits that the date of invention for the present application was prior to July 8, 2003 and that diligent action was taken from a time period prior to July 8, 2003, through the filing of the present application to constructively reduce the invention to practice. Therefore, Yu was not filed before Appellant's present invention. Thus, Yu does not qualify as prior art under 35 U.S.C. § 102(e). As such, the rejection of claims 1-10, 12-21, 23, 25-28, 30, and 32-35 as being anticipated by Yu is improper and should be withdrawn.

The Patent Office argues that Appellant has not shown sufficient evidence to demonstrate conception of the present invention prior to the filing date of Yu. In particular, the Patent Office alleges Appellant has not provided a mapping of the claims in the Invention Disclosure (Final Office Action mailed January 24, 2008, p. 9). The Patent Office's statement in this regard is incorrect. As set forth above, Appellant has provided a mapping of claim 1, in which Appellant provided cites to where support for the elements of claim 1 are found in the Invention Disclosure (Exhibit A, Declaration of Dany Sylvain, Appendix A)(see pp. 12 and 13, *infra*, and Response filed November 13, 2007, p. 3). To summarize, using claim 1 as an example, pages 2 and 3 of the Invention Disclosure (see Exhibit A, Declaration of Dany Sylvain, Appendix A) clearly shows conception of each of the limitations of the present invention[2]:

A method for facilitating communications between a user element and a protected network resource comprising:

a)   establishing a first tunneling session with the user element via a first access network (see Invention Disclosure, p. 2, "Brief Description of the Invention"; see also Invention Disclosure, p. 3, Figure entitled "Rehoming via VPN tunnel switching");

b)   assigning to the user element a first target network protected address for addressing packets intended for the protected network resource and traveling in part over the first tunneling session (see Invention Disclosure, p. 2, "Brief Description of the Invention");

---

[2] Independent claim 12 is directed to a tunnel access server, but has basically the same limitations as claim 1, and therefore was also conceived of at least as early as February 22, 2003, as shown in the Invention Disclosure.

c)   establishing a second tunneling session with the user element via a second access network (see Invention Disclosure, p. 2, "Brief Description of the Invention"; see also Invention Disclosure, p. 3, Figure entitled "Rehoming via VPN tunnel switching"); and

d)   reassigning to the user element the first target network protected address for addressing packets intended for the protected network resource and traveling in part over the second tunneling session (see Invention Disclosure, p. 2, "Brief Description of the Invention").

Thus, the Invention Disclosure (Exhibit A, Declaration of Dany Sylvain, Appendix A) together with the mapping and arguments in the response filed November 13, 2007, provide sufficient evidence of conception prior to the filing date of Yu.

Appellant also notes that a first draft of the Patent Application was completed on June 5, 2003 (see Exhibit B, Declaration of Benjamin S. Withrow, Paragraph 8; see also Exhibit A, Declaration of Dany Sylvain, Paragraph 8). Thus, a draft patent application was completed prior to the filing date of Yu, which is further evidence of conception. M.P.E.P. § 2138.06 ("Conception was established at least as early as the date a draft of the patent application was finished by a patent attorney on behalf of the inventor."). Based on the mapping of the claims to the Invention Disclosure and the fact that a draft of the patent application covering the invention was completed before the filing date of Yu, it is clear that the conception of the invention by Appellant occurred before the filing date of Yu.

The Patent Office also asserts that Appellant has not shown diligence and specifically points to a gap from June 5, 2003 to August 21, 2003 (Final Office Action mailed January 24, 2008, p. 9). However, all that is required for diligence is that Appellant account for the period during which diligence is required. M.P.E.P. § 2138.06. Appellant has accounted for this period. From June 5, 2003 until August 21, 2003, the inventor Dany Sylvain was reviewing the draft application and making comments regarding the draft patent application (see Exhibit A, Declaration of Dany Sylvain, Paragraph 9). The diligence required may be attorney diligence or engineering diligence, which does not require that "an inventor or his attorney . . . drop all other work and concentrate on the particular invention involved . . . ." M.P.E.P. § 2138.06, citing *Emery v. Ronden*, 188 U.S.P.Q. (BNA) 264, 268 (B.P.A.I. 1974). During the period of time from June 5, 2003 until August 21, 2003, the inventor was reviewing the draft application and making comments. Thus, Appellant has accounted for that period of time, especially in light of the case law that states that the attorney and the inventor need not drop all other work.

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Accordingly, based on the previously submitted Declarations and arguments, Appellant respectfully submits that from a date prior to July 8, 2003 (the filing date of Yu), diligent action was taken by Appellant's representative, Benjamin S. Withrow; the inventor, Mr. Sylvain; and the assignee of the present application, Nortel, to constructively reduce the invention to practice through the filing of the instant patent application on October 24, 2003. (See Exhibit B, Declaration of Benjamin S. Withrow, Paragraphs 3-14; see also Exhibit A, Declaration of Dany Sylvain, Paragraphs 5-12). Accordingly, Yu is not prior art under 35 U.S.C. § 102(e). Thus, the rejection of claims 1-10, 12-21, 23, 25-28, 30, and 32-35 as being anticipated by Yu must be withdrawn.

2. Yu Does Not Anticipate Claims 1-10, 12-21, 23, 25-28, 30, And 32-35 Because Yu Does Not Teach A First Tunneling Session To Be Established Via A First Access Network And A Second Tunneling Session To Be Established Over A Second Access Network

In any event, even if Yu can be considered prior art under 35 U.S.C. § 102(e), a point Appellant does not concede, Yu does not anticipate the claimed invention as Yu does not teach each and every element of the claimed invention.

Claim 1 recites a method for facilitating communications between a user element and a protected network resource comprising:

a) establishing a first tunneling session with the user element via a first access network;

b) assigning to the user element a first target network protected address for addressing packets intended for the protected network resource and traveling in part over the first tunneling session;

c) establishing a second tunneling session with the user element via a second access network; and

d) reassigning to the user element the first target network protected address for addressing packets intended for the protected network resource and traveling in part over the second tunneling session.

Thus, the invention of claim 1 requires a first tunneling session to be established via a first access network and a second tunneling session to be established over a second access network. Yu does not disclose establishing two tunneling sessions over different access

networks. In fact, Yu only discloses a single network, not **two different access networks** (see Yu, col. 1, lines 8-10 ("The present invention relates to communication protocols in **a** network, and more particularly to tunneling in **a** network using different communication protocols") (emphasis added); see also Figure 1). The Patent Office refers to column 1, lines 49-55 of Yu (Final Office Action mailed January 24, 2008, p. 3). Column 1, lines 49-55 of Yu merely discloses a method for establishing communication in a single network having two network peers. There is no discussion of establishing two tunneling sessions over two different access networks. Thus, Yu does not teach each and every element of claim 1 in which a first tunneling session is established via a first access network and a second tunneling session is established over a second access network. As such, Yu does not anticipate claim 1.

The Patent Office also cited to column 1, lines 56-63 of Yu as allegedly teaching the limitations of claim 1 (Advisory Action mailed May 28, 2008, p. 2). The cited portion of Yu reads:

> In another embodiment, a lookup service in a network comprises a first tunnel module that acquires communication data of a network peer. A registration table stores the communication data. A second tunnel module sends a communication request to the registration table, acquires the communication data from the registration table, and sends a communication attempt to the first tunnel based on the communication data (Yu, column 1, lines 56-63).

The cited portion of Yu discloses two tunnel modules. However, these two tunnel modules in Yu are not associated with two different access networks. The first tunnel module acquires communication data of **a network peer**, and this communication data is acquired and used by the second tunnel module. Thus, there is only a single network involved in Yu, not two different access networks (Yu, col. 1, lines 56-63; see also Yu, col. 1, lines 8-10, and Figure 1). Therefore, Yu does not teach two tunneling sessions being established over two different access networks, as recited in the claimed invention.

In the latest Advisory Action, the Patent Office also pointed to Figure 4A as allegedly showing two tunneling sessions being established over two different access networks, stating that tunnel modules 18 (sic) and 88 (sic) equate to the first and second tunneling sessions and site A and site B equate to the first and second networks (Advisory Action mailed May 28, 2008, p. 2, paragraph (C)). Appellant respectfully disagrees. It is clear from Yu that site A and site B are

not two different access networks. Figure 4A of Yu discloses a first application 74 sending encrypted data to a second application 76 (Yu, col. 4, lines 34-36). Thus, Yu merely discloses two applications. There is no teaching that the two applications are associated with two different access networks. In light of the rest of Yu clearly only mentioning a single network (see Yu, col. 1, lines 8-10 and lines 56-63; see also Figure 1), it is clear that Yu does not teach the two applications being associated with two different networks, and certainly not two different **access** networks. Accordingly, Figure 4A also does not teach two tunneling sessions being established over **two different access networks**, as recited in the claimed invention.

For the above reasons, Yu does not teach each and every element of claim 1. Independent claims 12, 23, and 30 all recite limitations similar to those in claim 1. Thus, claims 12, 23, and 30 are patentable over Yu for at least the same reasons set forth above with respect to claim 1.

Claims 2-10 depend from claim 1 and contain all of the limitations of claim 1. Claims 13-21 depend from claim 12 and contain all of the limitations of claim 12. Claims 25-28 depend from claim 23 and contain all of the limitations of claim 23. Claims 32-35 depend from claim 30 and contain all of the limitations of claim 30. Thus, claims 2-10, 13-21, 25-28, and 32-35 are patentable for at least the same reasons set forth above with respect to claims 1, 12, 23, and 30.

3. Yu Does Not Anticipate Independent Claims 23 And 30 Because Yu Does Not Teach The Claimed Tunnel Access Server

Independent claims 23 and 30 also recite that the first and second tunneling sessions are established with the first and second access networks via a tunnel access server. Yu does not teach the claimed tunnel access server. The Patent Office had not pointed to what element in Yu was considered to be the claimed tunnel access server until the Advisory Action mailed May 28, 2008. In that Advisory Action, the Patent Office alleged that column 3, lines 28-33 of Yu discloses that the service capability descriptor indicates whether the tunnel systems in peers 32 and 34 have the capability to act as a middleman server to maintain the proxy queues for the tunnels 48 and 50 (Advisory Action mailed May 28, 2008, p. 2). Thus, the Patent Office is equating the middleman server capability of peers 32 and 34 as the claimed tunnel access server.

Appellant respectfully submits that the middleman server capability of peers 32 and 34 is not equivalent to the claimed tunnel access server. In claims 23 and 30, the first and second

tunneling sessions are established with the claimed tunnel access server via the first and second access networks, respectively, and then a target network protected address is received from the claimed tunnel access server. In Yu, no target network protected address is received from the peers 32 and 34, as part of a middleman server capability or otherwise. In their middleman server capacity, the peers 32 and 34 merely maintain the queues; there is no teaching that the peers 32 and 34 of Yu send a target network protected address. Accordingly, the peers 32 and 34 are not equivalent to the claimed tunnel access server. Thus, Yu does not teach the claimed tunnel access server of claims 23 and 30. Claims 23 and 30 are thus patentable for this additional reason.

Claims 25-28 depend from claim 23 and contain all of the limitations of claim 23. Claims 32-35 depend from claim 30 and contain all of the limitations of claim 30. Thus, claims 25-28 and 32-35 are patentable for at least this additional reason with respect to claims 23 and 30.

E. Claims 11, 22, 24, 29, 31, And 36 Are Patentable Over Yu In View Of Bahl

As set forth above, Yu is not prior art under § 102(e) because Appellant conceived of the present invention prior to the filing date of Yu, and constructively reduced the present invention to practice through the filing of the present application. Since Yu is not available as prior art, the rejection of claims 11, 22, 24, 29, 31, and 36 over Yu in view of Bahl is improper and must be withdrawn.

In addition, as also discussed above, Yu does not teach each and every element of independent claims 1, 12, 23, and 30. Claims 11, 22, 24, 29, 31, and 36 all depend directly or indirectly from one of the independent claims and are thus patentable based on their dependency from their respective independent claim. In particular, Yu does not disclose that a first tunneling session is established via a first access network and a second tunneling session is established over a second access network, as recited in the independent claims. Bahl also does not disclose establishing two tunneling sessions over two access networks. Bahl is cited merely for its alleged teachings of the additional limitations found in dependent claims 11, 22, 24, 29, 31, and 36 (Final Office Action mailed January 24, 2008, pp. 7 and 8). Thus, Bahl does not correct the deficiencies of Yu, and the combination of Yu and Bahl does not teach or suggest each and every

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element of the claimed invention. As such, claims 11, 22, 24, 29, 31, and 36 are patentable over the cited references.

F. Conclusion

The rejection of claims 1-10, 12-21, 23, 25-28, 30, and 32-35 as being anticipated by Yu, and the rejection of claims 11, 22, 24, 29, 31, and 36 as being obvious over the combination of Yu and Bahl, are improper and must be reversed.

First, Yu is not prior art under 35 U.S.C. § 102(e). Appellant respectfully submits that the date of invention for the present application was prior to the July 8, 2003 filing date of Yu and that diligent action was taken from a time period prior to July 8, 2003, through the filing of the present application to constructively reduce the invention to practice. Therefore, Yu was not filed before Appellant's present invention, and Yu does not qualify as prior art under 35 U.S.C. § 102(e).

Second, even if Yu can be considered prior art under 35 U.S.C. § 102(e), a point Appellant does not concede, Yu does not anticipate the claimed invention as Yu does not teach each and every element of the claimed invention. In particular, the Patent Office has not shown where the prior art discloses establishing two tunneling sessions over different access networks, as claimed in the present invention. Since Yu only discloses a single network, Yu does not teach establishing two tunneling sessions over two different access networks, as recited by the claimed invention. Thus, Yu does not anticipate the claimed invention.
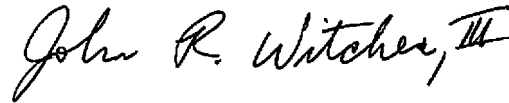
In addition, Yu also fails to show an additional limitation recited in independent claims 23 and 30. Independent claims 23 and 30 also recite that the first and second tunneling sessions are established with the first and second access networks via a tunnel access server. Yu does not teach the claimed tunnel access server. Thus, claims 23 and 30 are patentable for this additional reason.

As such, Appellant requests that the Board reverse the Examiner and instruct the Examiner to allow claims 1-36.

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Respectfully submitted,

WITHROW & TERRANOVA, P.L.L.C.

By: *John R. Witcher, III*

John R. Witcher, III
Registration No. 39,877
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Cary, NC 27518
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Date: August 25, 2008
Attorney Docket: 7000-265

(8) CLAIMS APPENDIX

1. A method for facilitating communications between a user element and a protected network resource comprising:

   a) establishing a first tunneling session with the user element via a first access network;

   b) assigning to the user element a first target network protected address for addressing packets intended for the protected network resource and traveling in part over the first tunneling session;

   c) establishing a second tunneling session with the user element via a second access network; and

   d) reassigning to the user element the first target network protected address for addressing packets intended for the protected network resource and traveling in part over the second tunneling session.

2. The method of claim 1 wherein the first and second tunneling sessions are encrypted tunneling sessions.

3. The method of claim 1 further comprising authenticating the first and second tunneling sessions with common authentication indicia.

4. The method of claim 1 wherein the first target network protected address is reassigned to the user element only when the second tunneling session is established within a predetermined period of time from termination or last use of the first tunneling session.

5. The method of claim 4 further comprising assigning to the user element a second target network protected address for addressing packets intended for the protected network resource and traveling in part over the second tunneling session when the second tunneling session is not established with the predetermined period of time.

6. The method of claim 1 further comprising terminating the first tunneling session and reserving the first target protected network address for the user element for a predetermined period of time for use in association with the second tunneling session.

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7. The method of claim 1 further comprising:

   a) receiving a request from the user element for a second tunneling session;

   b) terminating the first tunneling session; and

   c) enabling the second tunneling session.

8. The method of claim 1 further comprising receiving the packets from the user element and forwarding the packets to the protected network resource using the first target network protected address.

9. The method of claim 1 further comprising:

   a) receiving authentication indicia from the user element; and

   b) authenticating use of the second tunneling session by the user element based on the authentication indicia.

10. The method of claim 1 wherein the first and second access networks facilitate communications with the user element using different communication technologies.

11. The method of claim 10 wherein at least one of the different communication technologies is a wireless communication technology.

12. A tunnel access server for facilitating communications between a user element and a protected network resource comprising:

   a) at least one communication interface; and

   b) a control system associated with the at least one communication interface and adapted to:

      i) establish a first tunneling session with the user element via a first access network;

      ii) assign to the user element a first target network protected address for addressing packets intended for the protected network resource and traveling in part over the first tunneling session;

      iii) establish a second tunneling session with the user element via a second access network; and

iv) reassign to the user element the first target network protected address for addressing packets intended for the protected network resource and traveling in part over the second tunneling session.

13. The tunnel access server of claim 12 wherein the first and second tunneling sessions are encrypted tunneling sessions.

14. The tunnel access server of claim 12 wherein the control system is further adapted to authenticate the first and second tunneling sessions with common authentication indicia.

15. The tunnel access server of claim 12 wherein the first target network protected address is reassigned to the user element only when the second tunneling session is established within a predetermined period of time from termination or last use of the first tunneling session.

16. The tunnel access server of claim 15 wherein the control system is further adapted to assign to the user element a second target network protected address for addressing packets intended for the protected network resource and traveling in part over the second tunneling session when the second tunneling session is not established with the predetermined period of time.

17. The tunnel access server of claim 12 wherein the control system is further adapted to terminate the first tunneling session and reserve the first target network protected address for the user element for a predetermined period of time for use in association with the second tunneling session.

18. The tunnel access server of claim 12 wherein the control system is further adapted to:
   a) receive a request from the user element for a second tunneling session;
   b) terminate the first tunneling session; and
   c) enable the second tunneling session.

19. The tunnel access server of claim 12 wherein the control system is further adapted to receive the packets from the user element and forward the packets to the protected network resource using the first target network protected address.

20. The tunnel access server of claim 12 wherein the control system is further adapted to:
    a) receive authentication indicia from the user element; and
    b) authenticate use of the second tunneling session by the user element based on the authentication indicia.

21. The tunnel access server of claim 12 wherein the first and second access networks facilitate communications with the user element using different communication technologies.

22. The tunnel access server of claim 21 wherein at least one of the different communication technologies is a wireless communication technology.

23. A method for facilitating communications between a user element and a protected network resource comprising:
    a) establishing a first tunneling session with a tunnel access server via a first access network;
    b) sending packets intended for the protected network resource over the first tunneling session using a first target network protected address;
    c) establishing a second tunneling session with the tunnel access server via a second access network;
    d) receiving from the tunnel access server a target network protected address for sending packets intended for the protected network resource;
    e) determining if the target network address is the same as the first target network address; and
    f) if the target network address is the same as the first target network address, sending the packets intended for the protected network resource over the second tunneling session using the first target network protected address.

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24. The method of claim 23 wherein if the target network address is different than the first target network protected address, further comprising:

a) restarting applications communicating with the protected network resource; and

b) sending the packets intended for the protected network resource over the second tunneling session using the target network protected address.

25. The method of claim 23 further comprising terminating the first tunneling session prior to establishing the second tunneling session.

26. The method of claim 23 further comprising:

a) determining a need to communicate with the protected network resource;

b) determining the first tunneling session is no longer available; and

c) sending a request for the second tunneling session to the tunnel access server via the second access network.

27. The method of claim 26 further comprising sending authentication indicia for authenticating the user element to the tunnel access server.

28. The method of claim 23 wherein communications with the first and second access networks are facilitated using different communication technologies.

29. The method of claim 28 wherein at least one of the different communication technologies is a wireless communication technology.

30. A user element for facilitating communications with a protected network resource via a tunnel access server comprising:

a) at least one communication interface; and

b) a control system associated with the at least one communication interface and adapted to:

i) establish a first tunneling session with the tunnel access server via a first access network;

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ii) send packets intended for the protected network resource over the first tunneling session using a first target network protected address;

iii) establish a second tunneling session with the tunnel access server via a second access network;

iv) receive from the tunnel access server a target network address for sending packets intended for the protected network resource;

v) determine if the target network address is the same as the first target network protected address; and

vi) if the target network address is the same as the first target network address, send the packets intended for the protected network resource over the second tunneling session using the first target network protected address.

31. The user element of claim 30 wherein, if the target network protected address is different than the first target network protected address, the control system is further adapted to:
   a) restart applications communicating with the protected network resource; and
   b) send the packets intended for the protected network resource over the second tunneling session using the target network protected address.

32. The user element of claim 30 wherein the control system is further adapted to terminate the first tunneling session prior to establishing the second tunneling session.

33. The user element of claim 30 wherein the control system is further adapted to:
   a) determine a need to communicate with the protected network resource;
   b) determine the first tunneling session is no longer available; and
   c) send a request for the second tunneling session to the tunnel access server via the second access network.

34. The user element of claim 30 wherein the control system is further adapted to send authentication indicia for authenticating the user element to the tunnel access server.

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35. The user element of claim 30 wherein communications with the first and second access networks are facilitated using different communication technologies.

36. The user element of claim 35 wherein at least one of the different communication technologies is a wireless communication technology.

(9) EVIDENCE APPENDIX

Appellant relies on the Declarations of Dany Sylvain and Benjamin Withrow submitted by Appellant under 37 C.F.R. §1.131 on November 13, 2007, attached hereto as Exhibits A and B, respectively.

(10) RELATED PROCEEDINGS APPENDIX

As there are no related proceedings, this appendix is not applicable.

Exhibit A

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Dany Sylvain   Examiner: Sall, El Hadji Malick
Serial No. 10/693,807   Art Unit: 2157
Filed: 10/24/2003
For: **REHOMING VIA TUNNEL SWITCHING**

Mail Stop Amendment
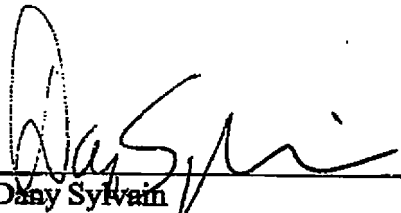Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

Sir:

DECLARATION UNDER 37 C.F.R. § 1.131 OF DANY SYLVAIN

1.   My name is Dany Sylvain and I am an employee of Nortel Networks, Inc. (hereinafter "Nortel"), a wholly owned subsidiary of the assignee of the present application. I have been employed by Nortel since 1981. As part of my obligations under my Employment Agreement, I am obligated to assign any rights to inventions to the present assignee.

2.   I am the inventor of Patent Application Serial No. 10/693,807 entitled "REHOMING VIA TUNNEL SWITCHING" (hereinafter "Patent Application").

3.   I have reviewed claims 1-36 presently pending in the Patent Application (hereinafter "Present Invention").

4.   At least as early as February 22, 2003, I conceived of the Present Invention as evidenced by the Invention Disclosure entitled "Rehoming via VPN Tunnel Switching," which is attached to this Declaration as Appendix A.

5.   On February 22, 2003, I completed the Invention Disclosure and submitted it to the Intellectual Property Law Department at Nortel. Between February 22, 2003 and April 7, 2003, Rick Witcher, in-house patent attorney for Nortel, reviewed the Invention Disclosure and made a final decision to file a patent application seeking protection for the invention disclosed in the Invention Disclosure.

6.   On or about April 7, 2003, I received a copy of a memo from the in-house patent attorney of Nortel, which is attached as Appendix B, that instructed Benjamin S. Withrow of the law firm of Withrow & Terranova, PLLC to prepare and file a patent application for the Invention Disclosure.

7.   From a period beginning soon after April 7, 2003, and continuing through October 24, 2003, I met with the attorney Benjamin S. Withrow and worked with him to prepare the Patent Application claiming the invention disclosed in the Invention Disclosure.

8.   On June 5, 2003, I received a first draft of the Patent Application (hereinafter "First Draft") from Benjamin S. Withrow's assistant, Jennifer Alkove, as evidenced by the e-mail attached to this Declaration as Appendix C.

9.   Between June 5, 2003, and August 21, 2003, I reviewed the First Draft. On or about August 21, 2003, I sent comments to Benjamin S. Withrow regarding the First Draft.

10.   On or about August 25, 2003, I received a copy of a revised Patent Application and the inventor declaration and assignment documents from Benjamin S. Withrow's assistant, Jennifer Alkove.

11.   On or about August 29, 2003, I returned the signed inventor declaration and assignment document to the attorney, Benjamin S. Withrow.

12.   Upon information and belief, the Patent Application was filed with the U.S. Patent and Trademark Office on October 24, 2003.

13.   I hereby declare that all declarations made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Dany Sylvain

Date

Appendix A

Invention Disclosure Submission Reply

Disc No:		Received Date:	22 feb 2003
Disclosure Title:	Rehoming via VPN tunnel switching		

---=== Inventors ===---

Global Id	Name	Work Info	Home Info
	HR Name: SYLVAIN, DANY Known As: DANY Email: Mgr First Name: STEPHEN Mgr Last Name: ELLIOTT Mgr Global ID:	Location: Location Code: ▟ Dept: Phone: Ext Phone: Fax: Ext Fax: MailStop: Citizenship: ▟	Address: Phone:

---=== Attachments ===---

File Name	File Type	File Comments
L2TP_switching.ppt	Microsoft Powerpoint (*.ppt)	

<End of Attachments>

Were there additional inventors involved:	no	Was there contractor involvement:	no
Name of Supervisor or Divisional Head:		Name of VP:	
STEVE ELLIOTT		SUE SPRADLEY	
LOB:	WIRELINE NETWORKS	Business Unit:	TDM PORTFOLIO & SOLUCTIONS DELIVERY
Conception Date:			

Has this invention been discussed with others? If so, please complete:

Inside Nortel – Whom?	LIAM CASEY	Outside Nortel – Whom?	
Inside Nortel – When?	14 feb 2003	Outside Nortel – When?	
NDA?	no		

Are you aware of any imminent future disclosures? Please provide dates and details:

Keywords for Searching:	Products that will use this invention:
Mobile IP, mobility, L2TP, IPSec, multiple access	

Does this invention arise from any arrangement involving an external organization?	
Is this invention relevant to a Standards Activity?	Internal Funding Project #'s:
no	

Technical Information

Brief Description of the Invention:

A computing device roaming across diverse access network (WLAN, Wireless, LAN, etc.) needs to keep running network applications (email, browsing, etc.)even when changing access networks. A VPN client (e.g. Contivity) is running on the device and allow the device to reach its home network via an arbitrary access network. A VPN RAS terminate the VPN tunnel at the home network. When the device roams to another network, its initial VPN connection is lost as well as its current IP address. Entering the new access network, the device performs automatically (or with the user's help) log on to the new network and gets a new IP address. This triggers the VPN client to automatically try to reconnect to the VPN RAS, reusing the same userid and password as in the first network. The VPN RAS recognizes that the same userid is reconnecting (within a short time frame, say 1-5 minutes) and will therefore allocate the same VPN IP address as previously.

Problem Solved by the Invention:

Allows users to freely roam across different network administrative domains and preserve service continuity.

Solutions that have been tried and why they didn't work:

Mobile IP is the current solution but was designed to operate under a single administrative domain. Mobile IP has several security issues. Mobile IP requires that the some of the network routers be upgraded to support Mobile IP.
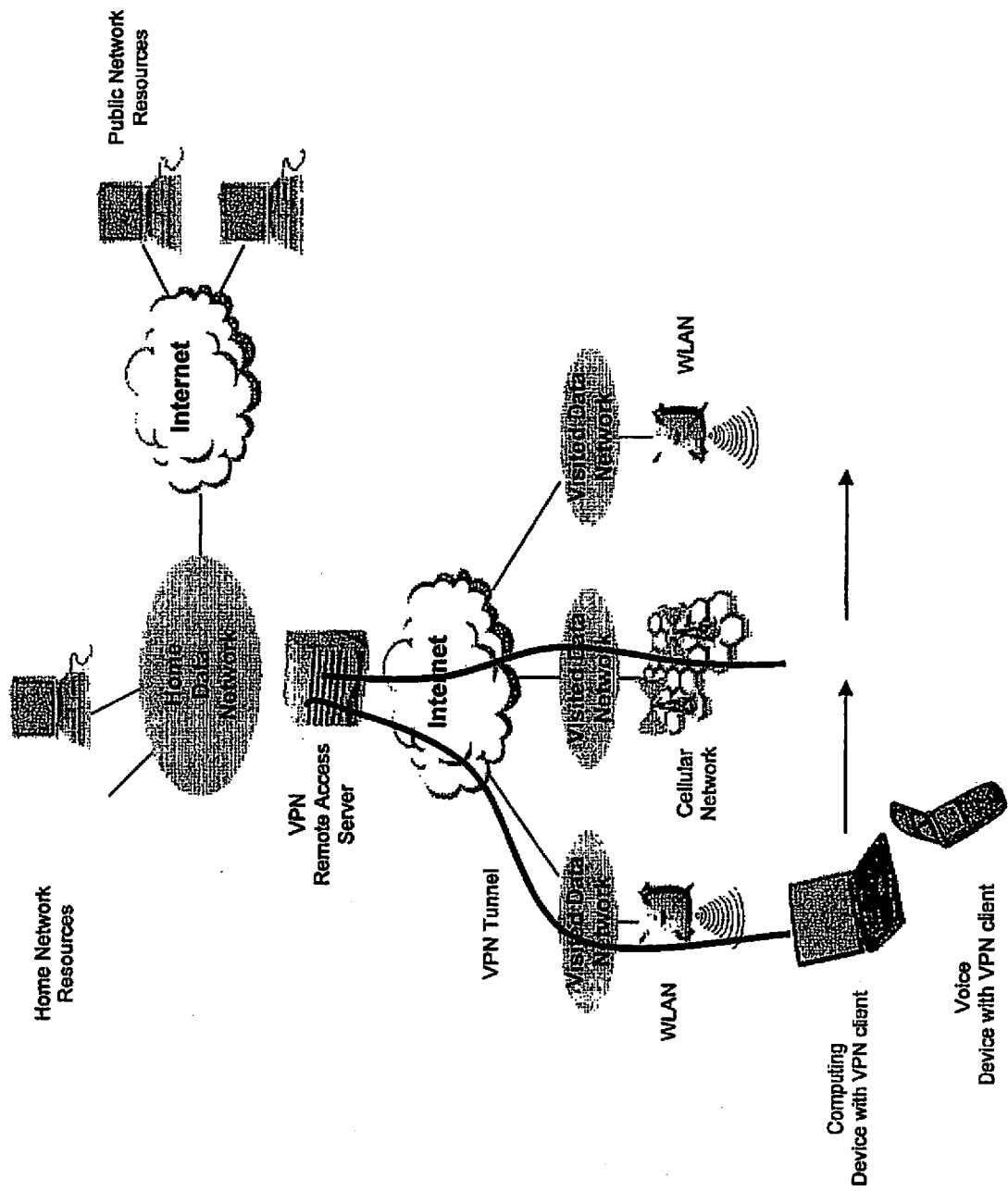
Specific elements or steps that solved the problem and how they do it:

See chart.

Commercial value of the invention to Nortel and Nortel's major competitors:

. Allows Nortel applications (e.g. voice, multimedia) to work seamlessly across various networks.

Rehoming via VPN tunnel switching

NORTEL NETWORKS CONFIDENTIAL

Slide 0

Appendix B

N🔵RTEL
NETWORKS

4006 E. Highway 54
Dept. N237, MS D16/02/0E2
Network Center 2
Durham, North Carolina 27713

John R. Witcher, III
Senior Counsel

NORTEL NETWORKS CONFIDENTIAL &
PRIVILEGED COMMUNICATION

April 7, 2003   VIA FEDERAL EXPRESS

Benjamin S. Withrow, Esq.
201 Shannon Oaks Circle
Suite 200
P. O. Box 1167
Cary, NC 27512

Dear Ben:

Re: **Invention Docket No.:**
      Title: REHOMING VIA VPN TUNNEL SWITCHING

Nortel Networks would like to retain you to prepare and file in the United States Patent and Trademark Office (USPTO) a patent application directed to the invention disclosed in the enclosed invention disclosure by the above-referenced filing date. The application should be prepared according to Nortel Networks' guidelines in accordance with the predetermined fee we have agreed with your firm. If you are unable to perform the requested work, please advise me immediately.

In addition to the invention disclosure, an invention disclosure Review Summary document is enclosed for your consideration. We request that you contact the primary inventor, Dany Sylvain, at (within two weeks of receiving this letter. Please ensure that the inventor is advised of his responsibilities regarding his duty of candor to the USPTO, as well as any other relevant rules and/or laws including the best mode requirement.

Questions pertaining to substantive issues associated with the application should be addressed with me, while administrative issues associated with the application should be addressed with Kathlyn Hunter. Please be sure that all communications associated with the application, including billing statements and the application itself bear the above-referenced disclosure number.

Please send a substantially complete and final draft of the application to me along with a completed Nortel Networks' Outsource Patent Application Checklist at least 10 days prior to the above-referenced filing date to provide Nortel Networks' Intellectual Property Law Group sufficient opportunity to review the application prior to filing. You should seek to obtain the signatures on the formal papers from all inventors directly.

Please confirm receipt of this disclosure via facsimile to the above-identified number. Please include your assigned reference number.

Upon filing the application with the USPTO, immediately fax a copy of the application transmittal letter to me, so that we have a record that the application has been filed. Thereafter, please send me a hardcopy of the application as filed along with an electronic copy in Microsoft Word 6.0 readable format on a 3 ½" floppy disk.

Should you have any questions, please call me at ·

Very truly yours,

Rick

Rick Witcher

Enclosures: Invention Disclosure No.: ·
                Review Summary
                Patent Application Outsource Checklist

cc: Dany Sylvain
        Stephen Elliott

Appendix C

Jennifer Alkove

From: Jennifer Rush Alkove [jrush@withrowterranova.com]
Sent: Thursday, June 05, 2003 3:43 PM
To: @nortelnetworks.com'
Cc: Bsw (E-mail)
Subject: First Draft of ·   (our file 7000-265)

Dear Dany:

Please find attached a first draft of the above-referenced patent application. The .zip file is protected with the password that we have used in previous applications. If you have any problems opening the attached file, please let me know. Please review the application and drawings carefully for accuracy and completeness, making any changes, additions, or corrections, if any, directly on the application (or electronically with changes tracked).

Please recall that the application must clearly explain the best mode of practicing the invention for which protection is desired. Also, the application must explain to an individual of ordinary skill in the art how to make and use the invention. After reviewing the application, please forward any comments to Ben Withrow and me. We will then send you a revised draft of the application, along with formal paperwork prepared for your signature. After receipt of the signed paperwork and approval from Nortel's legal department, we will file the application.

Please do not hesitate to contact Ben Withrow or me should you have any questions regarding the application. Thank you for allowing us to be of service to you and for your prompt attention to this matter.

Best regards,

Jennifer Rush Alkove
Withrow & Terranova, P.L.L.C.
201 Shannon Oaks Circle, Suite 200
Cary, NC 27511
Ph:
Fax:

First Draft.zip (...

Exhibit B

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Dany Sylvain   Examiner: Sall, El Hadji Malick
Serial No. 10/693,807   Art Unit: 2157
Filed: 10/24/2003
For: **REHOMING VIA TUNNEL SWITCHING**

Mail Stop Amendment
Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

Sir:

DECLARATION UNDER 37 C.F.R. § 1.131 OF BENJAMIN S. WITHROW

1.   My name is Benjamin S. Withrow of the law firm of Withrow & Terranova, PLLC, and I am a registered U.S. patent attorney, Registration No. 40,876.

2.   Starting in 2000, and continuing until the present time, I have been retained as outside counsel for Nortel Networks Limited (hereinafter "Nortel"), the assignee of the present application.

3.   On or about April 7, 2003, I received instructions from Nortel to prepare and file a patent application for an Invention Disclosure entitled "Rehoming via VPN Tunnel Switching," which is attached to this Declaration as Appendix A (hereinafter "Invention Disclosure"). This Invention Disclosure was assigned attorney docket number 7000-265.

4.   The Invention Disclosure was submitted by the inventor, Dany Sylvain, on February 22, 2003.

5.   Prior to April 7, 2003, I received instructions from Nortel to prepare and file patent applications for a number of previous Invention Disclosures.

6.   From the time of receiving instructions from Nortel to prepare and file patent applications for a number of previous Invention Disclosures until about October 24, 2003, I worked to

prepare patent applications for the number of previous Invention Disclosures in essentially a chronological, first-in-first-out fashion.

7.   Starting from a period soon after April 7, 2003, and continuing through October 24, 2003, I diligently reviewed the Invention Disclosure, met with the inventor Dany Sylvain, and diligently worked to prepare a patent application (hereinafter "Patent Application") claiming the invention disclosed in the Invention Disclosure.

8.   On June 5, 2003, my assistant, Jennifer Alkove, sent a first draft of the Patent Application (hereinafter "First Draft") to the inventor, as evidenced by the e-mail attached to this Declaration as Appendix B.

9.   On August 21, 2003, I received comments from the inventor regarding the First Draft, as evidenced by the excerpt from a spreadsheet attached to this declaration as Appendix C.

10.   On August 25, 2003, I revised the Patent Application to incorporate the comments from the inventor for the First Draft, and sent a revised Patent Application to in-house counsel at Nortel, as evidenced by the spreadsheet attached to this declaration as Appendix C.
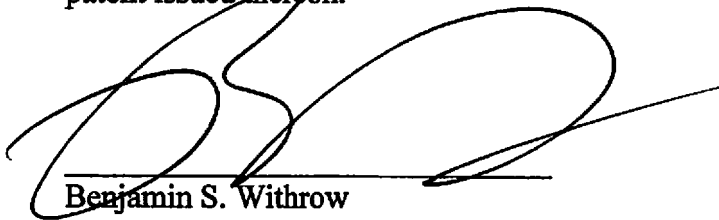
11.   On August 25, 2003, my assistant, Jennifer Alkove, sent a copy of the revised Patent Application and the inventor declaration and assignment document to the inventor to be signed, as evidenced by the spreadsheet attached to this declaration as Appendix C.

12.   On August 29, 2003, I received a signed inventor declaration and assignment document from the inventor, as evidenced by the spreadsheet attached to this declaration as Appendix C.

13.   Between August 25, 2003, and October 23, 2003, I discussed the revised Patent Application with in-house counsel at Nortel, who indicated that he had reviewed the revised Patent Application, and who provided comments concerning the revised Patent Application to me. On October 23, 2003, I received approval from in-house counsel at Nortel to file the revised Patent Application, as evidenced by the spreadsheet attached to this declaration as Appendix C.

14.   On October 24, 2003, the Patent Application was filed with the U.S. Patent & Trademark Office and was assigned Application Serial Number 10/683,807.

15.   I hereby declare that all declarations made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Benjamin S. Withrow

November 13, 2007
Date

Appendix A

NØRTEL
NETWORKS

4006 E. Highway 54
Dept. N237, MS D16/02/0E2
Network Center 2
Durham, North Carolina 27713

John R. Witcher, III
Senior Counsel

**NORTEL NETWORKS CONFIDENTIAL &
PRIVILEGED COMMUNICATION**

April 7, 2003   VIA FEDERAL EXPRESS

Benjamin S. Withrow, Esq.
201 Shannon Oaks Circle
Suite 200
P. O. Box 1167
Cary, NC 27512

Dear Ben:

Re: **Invention Docket No.:**
       Title: REHOMING VIA VPN TUNNEL SWITCHING

Nortel Networks would like to retain you to prepare and file in the United States Patent and Trademark Office (USPTO) a patent application directed to the invention disclosed in the enclosed invention disclosure by the above-referenced filing date. The application should be prepared according to Nortel Networks' guidelines in accordance with the predetermined fee we have agreed with your firm. If you are unable to perform the requested work, please advise me immediately.

In addition to the invention disclosure, an invention disclosure Review Summary document is enclosed for your consideration. We request that you contact the primary inventor, Dany Sylvain, at   , within two weeks of receiving this letter. Please ensure that the inventor is advised of his responsibilities regarding his duty of candor to the USPTO, as well as any other relevant rules and/or laws including the best mode requirement.

Questions pertaining to substantive issues associated with the application should be addressed with me, while administrative issues associated with the application should be addressed with Kathlyn Hunter. Please be sure that all communications associated with the application, including billing statements and the application itself bear the above-referenced disclosure number.

Please send a substantially complete and final draft of the application to me along with a completed Nortel Networks' Outsource Patent Application Checklist at least 10 days prior to the above-referenced filing date to provide Nortel Networks' Intellectual Property Law Group sufficient opportunity to review the application prior to filing. You should seek to obtain the signatures on the formal papers from all inventors directly.

Please confirm receipt of this disclosure via facsimile to the above-identified number. Please include your assigned reference number.

Upon filing the application with the USPTO, immediately fax a copy of the application transmittal letter to me, so that we have a record that the application has been filed. Thereafter, please send me a hardcopy of the application as filed along with an electronic copy in Microsoft Word 6.0 readable format on a 3 ½" floppy disk.

Should you have any questions, please call me at

Very truly yours,

Rick

Rick Witcher

Enclosures: Invention Disclosure No.:
                Review Summary
                Patent Application Outsource Checklist

cc: Dany Sylvain
        Stephen Elliott

Invention Disclosure Submission Reply

Disc No:		Received Date:	22 feb 2003
Disclosure Title:	Rehoming via VPN tunnel switching		

---=== **Inventors** ===---

Global Id	Name	Work Info	Home Info
;	HR Name: SYLVAIN, DANY Known As: DANY Email: Mgr First Name: Mgr Last Name: ; Mgr Global ID:	Location: Location Code: Dept: Phone: Ext Phone: Fax: Ext Fax: MailStop: Citizenship:	Address: Phone:

---=== **Attachments** ===---

File Name	File Type	File Comments
L2TP_switching.ppt	Microsoft Powerpoint (*.ppt)	

<End of Attachments>

Were there additional inventors involved:	no	Was there contractor involvement:	no
Name of Supervisor or Divisional Head:		Name of VP:	
STEVE ELLIOTT		SUE SPRADLEY	
LOB:	WIRELINE NETWORKS	Business Unit:	TDM PORTFOLIO & SOLUCTIONS DELIVERY
Conception Date:			
Has this invention been discussed with others? If so, please complete:			
Inside Nortel - Whom?	LIAM CASEY	Outside Nortel - Whom?	
Inside Nortel - When?	14 feb 2003	Outside Nortel - When?	
NDA?	no		
Are you aware of any imminent future disclosures? Please provide dates and details:			

Keywords for Searching:	Products that will use this invention:
Mobile IP, mobility, L2TP, IPSec, multiple access	

Does this invention arise from any arrangement involving an external organization?	
Is this invention relevant to a Standards Activity?	Internal Funding Project #'s:
no	

Technical Information

Brief Description of the Invention:

A computing device roaming across diverse access network (WLAN, Wireless, LAN, etc.) needs to keep running network applications (email, browsing, etc.)even when changing access networks. A VPN client (e.g. Contivity) is running on the device and allow the device to reach its home network via an arbitrary access network. A VPN RAS terminate the VPN tunnel at the home network. When the device roams to another network, its initial VPN connection is lost as well as its current IP address. Entering the new access network, the device performs automatically (or with the user's help) log on to the new network and gets a new IP address. This triggers the VPN client to automatically try to reconnect to the VPN RAS, reusing the same userid and password as in the first network. The VPN RAS recognizes that the same userid is reconnecting (within a short time frame, say 1-5 minutes) and will therefore allocate the same VPN IP address as previously.

Problem Solved by the Invention:

Allows users to freely roam across different network administrative domains and preserve service continuity.

Solutions that have been tried and why they didn't work:

Mobile IP is the current solution but was designed to operate under a single administrative domain. Mobile IP has several security issues. Mobile IP requires that the some of the network routers be upgraded to support Mobile IP.
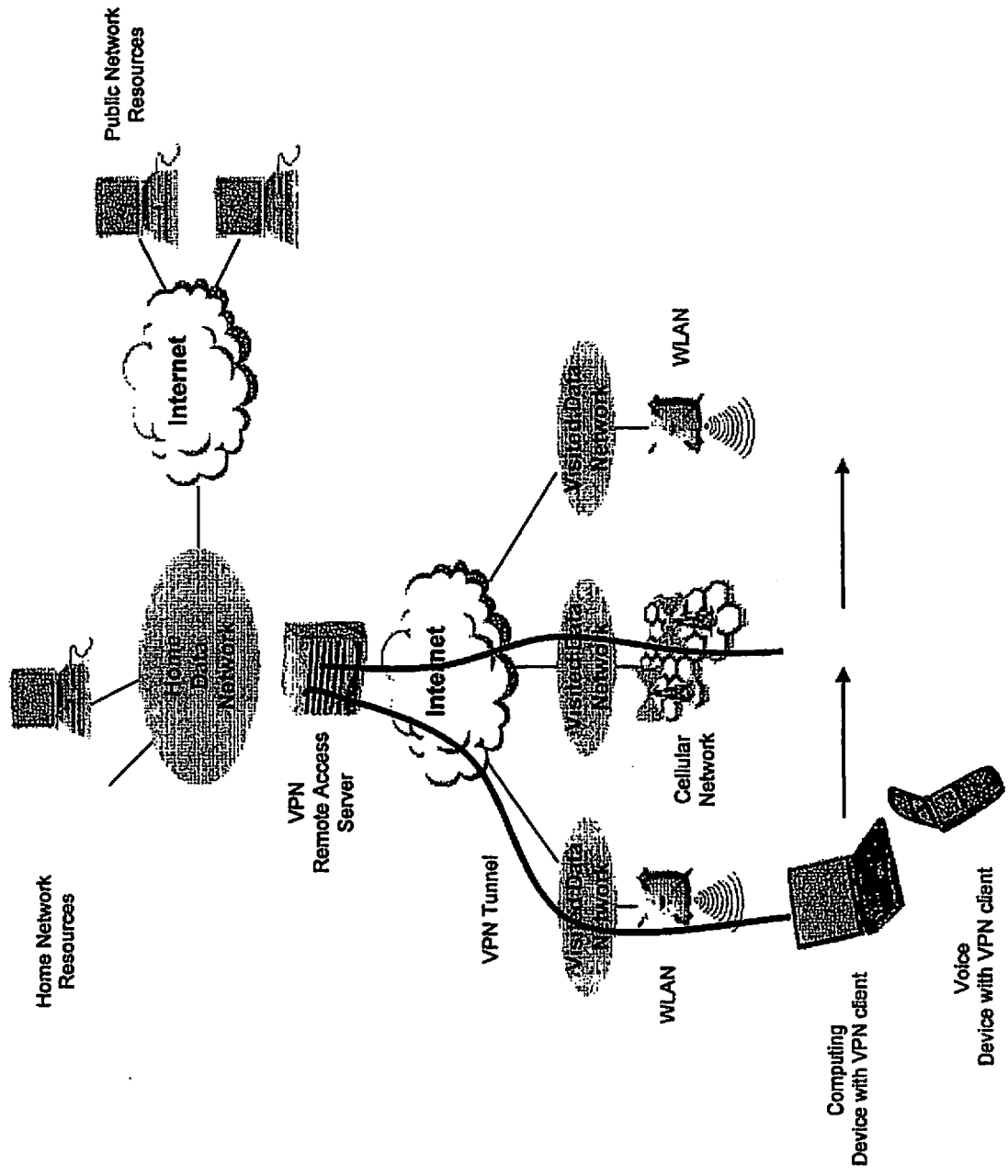
Specific elements or steps that solved the problem and how they do it:

See chart.

Commercial value of the invention to Nortel and Nortel's major competitors:

Allows Nortel applications (e.g. voice, multimedia) to work seamlessly across various networks.

Rehoming via VPN tunnel switching

Public Network
Resources

Internet

Home Network
Resources

Home Data Network

VPN
Remote Access
Server

Internet

WLAN

Visited Data Network

VPN Tunnel

Visited Data Network

Cellular
Network

WLAN

Computing
Device with VPN client

Voice
Device with VPN client

NORTEL NETWORKS CONFIDENTIAL

Slide 0

Appendix B

Jennifer Alkove

From:	Jennifer Rush Alkove [jrush@withrowterranova.com]
Sent:	Thursday, June 05, 2003 3:43 PM
To:	@nortelnetworks.com'
Cc:	Bsw (E-mail)
Subject:	First Draft of (our file 7000-265)

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Best regards,

Jennifer Rush Alkove
Withrow & Terranova, P.L.L.C.
201 Shannon Oaks Circle, Suite 200
Cary, NC 27511

First Draft.zip (...

Appendix C

Matter ID	First draft sent	First draft received back	Final draft sent (IP Law)	Final draft comments received back (IP Law)	Formal paperwork sent	Formal paperwork received back	Actual filing date (Prov.)
Nortel Case Status							
7000-765	6/5/2003	8/21/2003	8/25/2003	10/23/2003	8/25/2003	8/29/2003	10/24/2003